

REMARKS

In the non-final office action mailed February 27, 2006, claims 1-44 were pending and stand rejected. Claim 2 has been cancelled in this response, and claims 1, 9, 14, 15, 17, 28, 35, 37 and 40 have been amended. Reconsideration of the present application including claims 1 and 3-44 as amended is respectfully requested.

Claims 14, 28 and 35 were objected to for various informalities. Claims 14 and 28 have been amended above in a non-limiting manner to address the objections raised in the office action. It was indicated that claim 35 did not end in a period, but a review of the claims as originally filed indicated that it did, so it has not been amended above. However, original claim 9 does not end in a period, so it is believed that the Examiner intended to object to claim 9, and claim 9 has also been amended above to address this issue.

Claims 15, 17 and 37-39 were rejected under 35 USC 112, second paragraph. Claims 15, 17 and 35 have been amended above in a non-limiting manner to address the 112 rejections raised in the office action.

Claims 1, 3, 4, 8, 13-15 and 18 were rejected under 35 USC 102(b) as being anticipated by U.S. Patent No. 4,300,541 to Burgin. Claim 1 has been amended to recite "a body extending between a distal end and a proximal end and forming a tube defining a working channel...." Burgin fails to disclose a tube that defines a working channel. Accordingly, withdrawal of this basis of the rejection of claim 1 and claims 3, 4, 8, 13-15 and 18 is respectfully requested.

Claims 35, 36, and 39 were rejected under 35 USC 102(b) as being anticipated by U.S. Patent No. 5,785,748 to Min. Claim 35 has been amended and recites "a tubular body extending between a distal end and a proximal end, said body including an inner wall surface defining a working channel for receiving at least one surgical instrument therethrough, said body comprised of light transmittable material and including at least one light transmitter in a wall of said body to transmit light along said body and into said working channel, wherein said at least one light transmitter extends circumferentially about at least a proximal portion of said tubular body." Min fails to disclose or suggest at least one light transmitter extending circumferentially about at least a proximal portion of the body. Rather, Min discloses speculum with moveable halves each with its own battery and optical fibers that are isolated from one another. The optical fibers extend axially along the speculum halves. If the optical fibers were to extend circumferentially around the speculum, then the speculum halves would be restricted from moving relative to one

another. Accordingly, claim 35 and claims 36 and 39 depending therefrom distinguish Min and withdrawal of this basis of the rejection is respectfully requested.

Claims 1-15 and 17-34 were rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 3,075,516 to Strauch in view of Burgin. "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." In re Fritch, 23 USPQ2d, 1783-84 (Fed. Cir. 1992) (holding that a combination of references does not render a claim obvious due to a lack of suggestion or motivation to combine or modify). As a corollary, the patent office has recognized that "[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." Manual of Patent Examining Procedure (MPEP) § 2143.01. MPEP § 2143.01 also states that "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious."

Strauch discloses a vaginal speculum made of transparent material "in order to provide for complete inspection of the walls of the vagina throughout its length." Col. 5, lines 16-18. The office action asserts it would have been obvious to include the protrusions and recesses 102 of Burgin on the inner surface of Strauch to direct light within the working channel and to the work area. It is respectfully submitted, however, that one would not seek to direct light away from the inner surfaces of the speculum in Strauch since this would direct the light away from the inner surface where light is desired to inspect tissue through the wall of the speculum. Furthermore, the discontinuities on the inner surface would distort or obstruct the view of the surgeon or attendant through the inner wall surface, further hindering use of the speculum in Strauch. Accordingly, there is no motivation or desirability provided in the references to modify Strauch in accordance with the teachings of Burgin as proposed in the office action. Furthermore, such modifications would render Strauch unsuitable for its intended purpose. Therefore, Strauch and Burgin are not properly combinable to establish a *prima facie* case of obviousness, and withdrawal of this basis of the rejection is respectfully requested.

Furthermore, assuming *arguendo* that Strauch and Burgin were combinable, there are several features in the rejected claims that are not disclosed or suggested by the combination. For example, with regard to claims depending directly or indirectly from claim 1, claim 11

recites “wherein said at least one protrusion forms a ring extending around said working channel.” No teaching or suggestion of a ring extending around a working channel is provided in the references. Strauch lacks any protrusion, and Burgin includes protrusions that terminate at the sides of the retractor blades. In another example, claim 13 recites “wherein said at least one protrusion includes an outer surface convexly curved in a direction between said distal end and said proximal end of said body.” Burgin discloses protrusions that are concavely curved in the direction between the proximal and distal ends or that are elongated and not curved at all in the direction between the proximal and distal ends.

In addition, claim 18 recites “wherein said body includes an outer wall surface opposite said inner wall surface, said distal end and including a first surface portion extending from said outer wall surface toward said inner wall surface and a convexly curved second surface portion extending from said first portion to said inner wall surface.” Claim 20 depends indirectly from claim 18 and recites “wherein said first surface portion is orthogonally oriented relative to said outer wall surface.” No disclosure or suggestion of these features is identified in the office action.

With regard to claims depending directly or indirectly from claim 21, claim 27 recites “wherein said recess extends completely about said working channel.” No teaching or suggestion of a recess extending around a working channel is provided in the references. Strauch lacks any recess, and to the extent Burgin could be considered to include recesses they terminate at the sides of the retractor blades. Claim 29 recites “wherein said at least one protrusion extends around said working channel” and is thus also not disclosed or suggested in either of Strauch or Burgin. In another example, claim 31 recites “wherein said at least one protrusion includes an outer surface convexly curved in the direction between said distal end and said proximal end of said body.” Burgin discloses protrusions that are concavely curved in the direction between the proximal and distal ends or that are elongated and not curved at all in the direction between the proximal and distal ends.

In addition, claim 33 recites “wherein said body includes an outer wall surface, said distal end including a first surface portion extending from said outer surface toward said inner surface and a convexly curved second surface portion extending from said first portion to said inner wall surface.” Claim 34 depends from claim 33 and recites “wherein said first surface portion is

orthogonally oriented to said outer surface.” No disclosure or suggestion of these features is identified in the office action.

Claim 16 was rejected under 35 USC 103(a) as being unpatentable over Burgin in view of U.S. Patent No. 4,306,546 to Heine. Burgin is discussed above. As stated in the office action, Burgin is molded such that a significant portion of the light entering the body is transmitted to and through the discontinuities. Burgin also discloses that the discontinuities are located on the inner surface of the retractor blades. As also stated in the office action, Heine teaches a surface of the tube that is coated or masked to prevent unwanted light from entering the passage. The office action then asserts that it would have been obvious to mask the outer surface of the body of Burgin, in view of the teaching of Heine, to prevent light from exiting the outer surface so as to focus as much light as possible to and through the discontinuities.

The assertion is traversed. Heine teaches away from its combination with Burgin. Heine teaches lining or masking the inner surface of the tube so that the light is not internally reflected into the tube, but rather is directed to a light exit surface 23 located at the distal end of the tube. If the inner surface of the body in Burgin is masked or coated as taught in Heine, then the recess or protrusion 102 in the inner surface of the body, which is spaced proximally of the distal end of the body, would also be masked, thus preventing light from being reflected into the body of the cavity. Accordingly, the proposed modification would render the discontinuity in Burgin useless, teaching away from the combination of Burgin and Heine. Therefore, a prima facie case of obviousness has not been established and withdrawal of this basis of the rejection of claim 16 is respectfully requested.

Claims 37 and 38 were rejected under 35 USC 103(a) as being unpatentable over Min in view of U.S. Patent No. 6,551,346 to Crossley. The office action asserts that it would have been an obvious matter of design choice to form the light transmitter of Min in a spiral manner in the body since “applicant has not disclosed that such solve any stated problem or is anything more than one of numerous shapes or configurations a person of ordinary skill would find obvious for the purpose of providing light to the working channel.” The assertion is traversed. In order to establish a prima facie case of obviousness, there must be some suggestion or motivation to combine the references, either from the references themselves or from knowledge generally available in the art. However, applicant’s own disclosure is not a proper reference nor can it properly be relied upon to provide the requisite motivation or suggestion to combine or modify.

Furthermore, one skilled in the art would find no motivation or suggestion to make asserted modification to Min based on the teachings of Crossley since the proposed modification would render the device in Min unsatisfactory for its intended purpose.

Min discloses a speculum with blades that are moved apart in order to provide access. If Min were modified to include a light transmitter that extends circumferentially or spirally around and between the blades, then opening of the blades would be prevented or resisted. Accordingly, the modification proposed in the office action would render Min unsatisfactory for its intended purpose, and Min and Crossley are not properly combinable to provide a prima facie case of obviousness for claims 37 and 38. Accordingly, withdrawal of this basis of the rejection is respectfully requested.

Claims 40, 41, 43, and 44 were rejected under 35 USC 103(a) as being unpatentable over Strauch in view of Burgin and U.S. Patent No. 6,176,824 to Davis. As discussed above, Strauch and Burgin teach away from their combination, and therefore are not properly combinable with Davis for these same reasons and thus do not provide a prima facie case in rejecting claims 40, 41, 43 and 44. Therefore, withdrawal of this basis of the rejection of these claims is respectfully requested.

Claim 42 depends from claim 40 and was rejected under 35 USC 103(a) as being unpatentable over Strauch in view of Burgin and Davis, and further in view of Heine. Strauch, Burgin and Davis are discussed above. As discussed above with respect to claims 1-15 and 17-34, and also with respect to claim 40, Strauch and Burgin teach away from their combination, and the modification to Strauch proposed in the office action renders it unsatisfactory for its intended purpose.

Assuming arguendo that Strauch were modified by Burgin as asserted in the office action, Heine teaches away from the modification of Strauch and Burgin asserted in the office action. Heine, when properly considered as a whole, including those portion that teach away, teaches lining or masking the inner surface of the tube so that the light is not internally reflected into the tube, but rather is directed to a light exit surface 23 located at the distal end of the tube. This masking is to prevent formation of illuminated rings as the tube is moved within the body (col. 6, lines 29-36.) If the inner surface of the body of the device formed by a combination of Strauch and Burgin is masked or coated as taught in Heine, then the discontinuity in the inner surface of the body, which is spaced proximally of the distal end of the body, would also be masked, thus

preventing light from being reflected into the body of the cavity. Accordingly, the proposed modification would render the discontinuity useless, teaching away from the asserted combination. Therefore, a prima facie case of obviousness has not been established and withdrawal of this basis of the rejection of claim 42 is respectfully requested.

Claims 40, 41, 43, and 44 were rejected under 35 USC 103(a) as being unpatentable over Burgin in view of Davis. Claim 40 has been amended and recites “a retractor comprised of light transmittable material, said retractor extending between a distal end and a proximal end and defining a working channel for receiving at least one surgical instrument therethrough and a proximal coupling portion that extends around said working channel at said proximal end, said retractor further including an inner wall surface extending about said working channel and a discontinuity in said inner wall surface to direct light into said working channel; a light source operable to generate light; and a link coupling said light source to said coupling portion of said retractor to deliver light around said coupling portion for transmission of light from said coupling portion through said retractor and into said working channel.” A review of Burgin and Davis finds no disclosure or suggestion of any proximal coupling portion that extends around a working channel that also delivers light therearound through a retractor. Rather, in Davis link 314 engages in an inlet 360 of base 332. From the inlet, light is conducted to the blades from the base 332 and yoke 330, neither of which are a proximal coupling portion that extends around a working channel. Accordingly, claim 40 distinguishes any combination of Burgin and Davis and withdrawal of this basis of the rejection of the same is respectfully requested.

Furthermore, claims 41, 43 and 44 depending from claim 40 are patentable at least for the reasons provided for claim 40 and for other reasons. For example, claim 43 recites “wherein said proximal coupling portion includes a ring portion extending about said proximal end of said body and an extension portion extending from said ring portion for coupling with said light source.” A review of Burgin and Davis does not reveal any teaching or suggestion of these features, nor has the same been pointed out in the office action. Accordingly, withdrawal of this basis of the rejection of these claims is respectfully requested.

Claim 42 was rejected under 35 USC 103(a) as being unpatentable over Burgin in view of Davis, and further in view of Heine. Burgin and Davis are discussed above, and Burgin is molded such that a significant portion of the light entering the body is transmitted to and through the discontinuities along the inner surface of the retractor. Assuming arguendo that Burgin and

Davis were combined, Heine teaches away from the modification to Burgin and Davis asserted in the office action. When Heine is properly considered as a whole, including those portions that teach away, then the teaching in Heine of lining or masking the inner surface of the tube so that the light is not internally reflected into the tube, but rather is directed to a light exit surface 23 located at the distal end of the tube, cannot be ignored. This masking is to prevent formation of illuminated rings as the tube is moved within the body (col. 6, lines 29-36.)

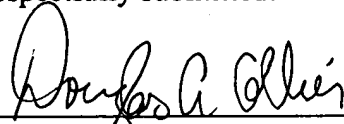
The purpose of Heine is to prevent light from entering the viewing space from the inner surface. If the inner surface of the body in the Burgin and Davis combination is masked or coated as taught in Heine, then the discontinuity in the inner surface of the body, which is spaced proximally of the distal end of the body, would also be masked, thus preventing light from being reflected into the working channel defined by the body. Accordingly, the proposed modification would render the discontinuity in the inner surface useless, teaching way from asserted combination. Therefore, a prima facie case of obviousness has not been established and withdrawal of this basis of the rejection of claim 42 is respectfully requested.

The drawings were objected to for including reference sign 438 which was not in the specification. The amendments to the specification above include an amendment to include reference sign 438 in paragraph [0035]. Accordingly, this objection is moot and withdrawal of the same is respectfully requested.

The drawings were also objected to for not including reference signs 340 and 628 therein. Please find enclosed herewith two sheets labeled "REPLACEMENT SHEET" to replace corresponding sheets in the originally filed drawings. These replacement sheets include the reference signs 340 and 628 added to Figures 4 and 7, respectively, in a manner consistent with the specification. Also enclosed are two sheets labeled "ANNOTATED SHEET" to show the proposed changes Figures 4 and 7 marked in ink. Withdrawal of the objection to the drawings is respectfully requested.

Reconsideration of the present application as amended and including claims 1 and 3-44 is respectfully requested. The Examiner is encouraged to contact the undersigned to resolve any outstanding issues with respect to the present application.

Respectfully submitted:

A handwritten signature in black ink, appearing to read "Douglas A. Collier", is written over a horizontal line.

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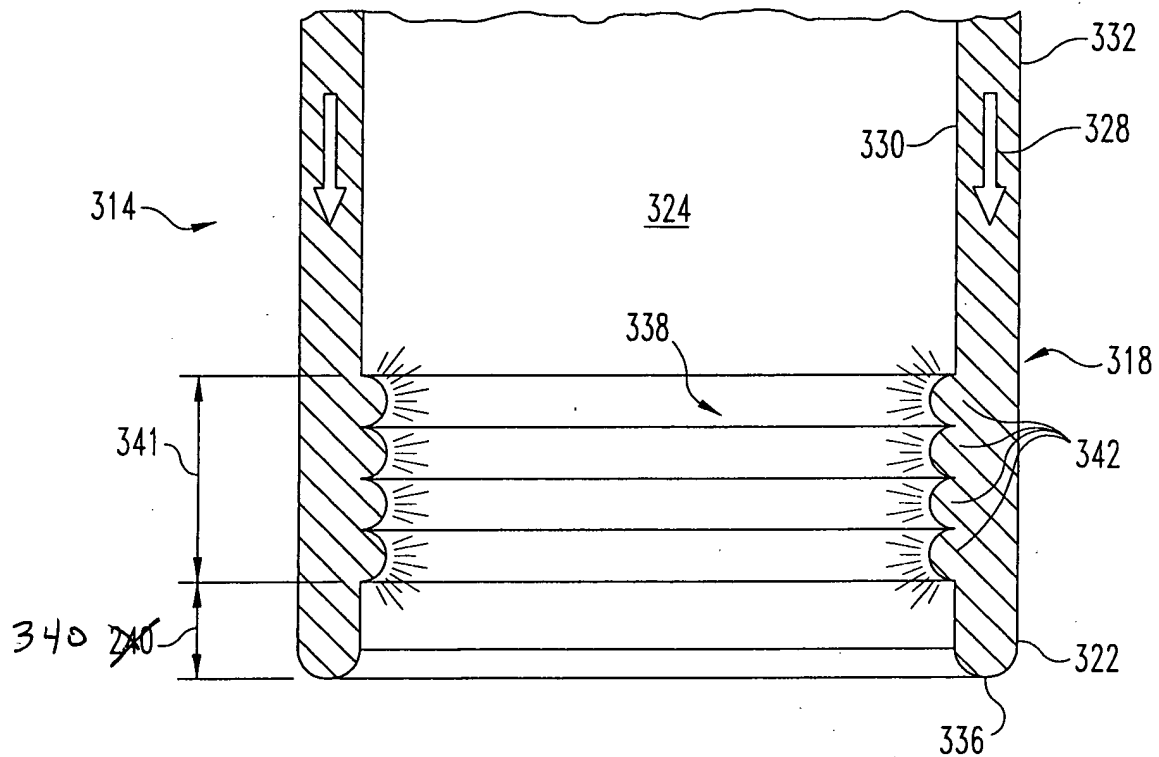


Fig. 4

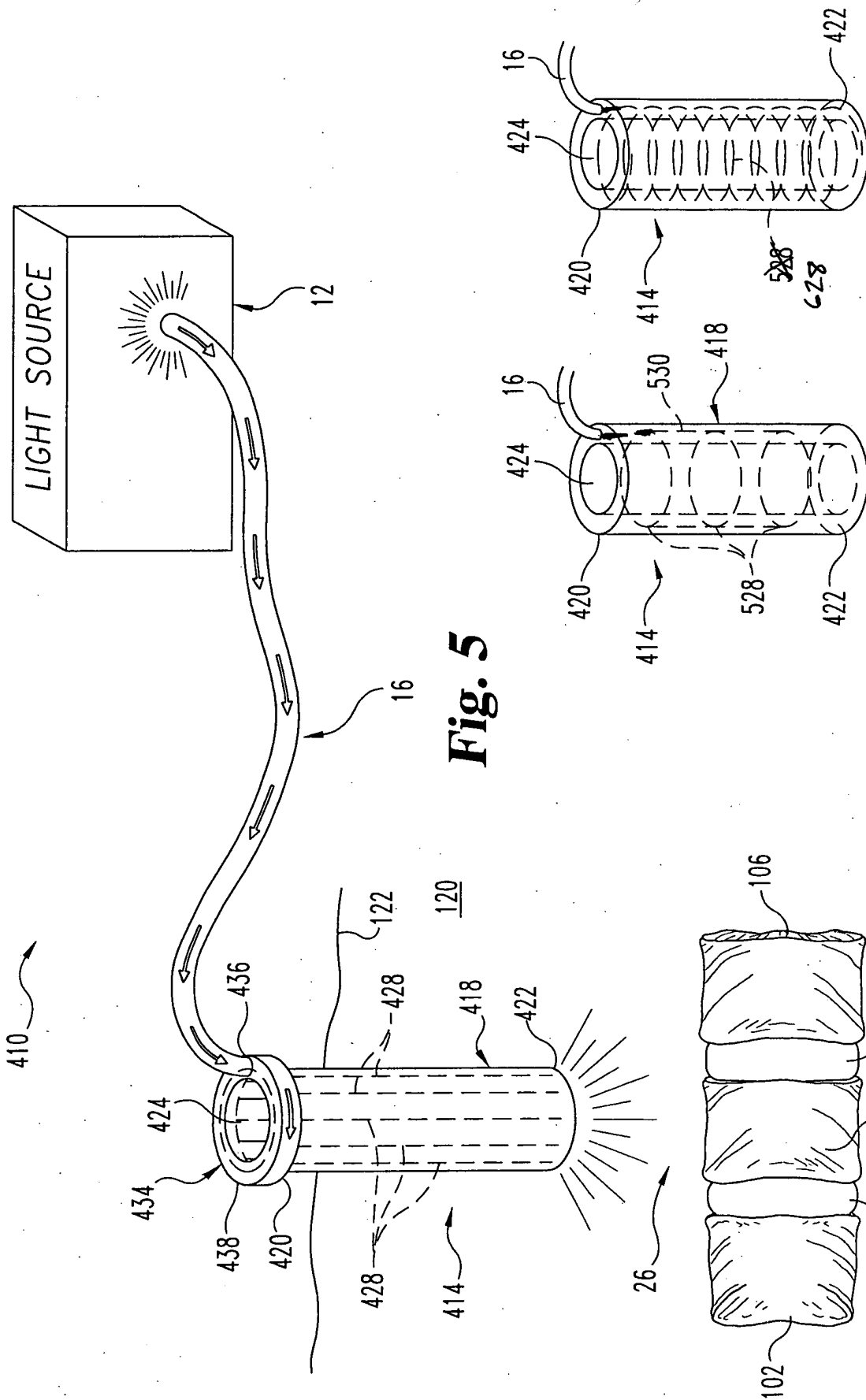


Fig. 7

Fig. 6

